

Texas Children's Hospital manages increased volume with streamlined workflows

PowerScribe Workflow Orchestration helps the body radiology team review more plain film X-rays, avoid backlogs and automate workflow distribution.

Challenge

- Burden of reviewing an average of 500 X-rays daily across three institutions
- Need for automated and streamlined system to assign and track unread X-rays in a timely way
- Skepticism around using technology and concerns about losing autonomy

Solution

- Leverage PowerScribe Workflow Orchestration to assign unread X-rays automatically
- Configure the solution to route assignments twice daily to avoid bottlenecks and backlogs
- Create a more equitable rotation of plain films across the team

Results

- More equitable distribution of expected shared workload and less variability in turn-around times
- Enabled seamless efficacy with increasing imaging volumes
- Reduced average turn-around by 25%
- Improved overall radiologist satisfaction

Need for streamlined plain film review process

Houston-based Texas Children's Hospital is a not-for-profit organization working to ensure healthier futures for children and women. Ranked #3 overall for best children's hospitals, it's regularly named best in the nation for children needing pulmonary care, pediatric cardiology, and heart surgery. Six of the hospital's subspecialties rank in the top three nationally, and all rank within the top 10. As part of its commitment to quality care and optimized outcomes, Texas Children's deployed a new feature to its workflow orchestration solution—enhancing reading efficiency, reducing turn-around times and providing an integrated reading environment that better supports patient care.



“Turn-around times are much improved, but the biggest difference is in variability. Before using PowerScribe Workflow Orchestration’s distributor module, we had a very wide range from 11 to 125 minutes. Since launching the solution, averages are in a narrower range of 15 to 74 minutes.”

Marla B.K. Sammer, MD, Associate Professor of Pediatric Radiology
Texas Children’s Hospital

Texas Children’s Hospital radiologists read a high number of X-rays each day. To manage, the radiology department instituted PowerScribe Workflow Orchestration several years ago. Recently, the body radiology section deployed a new feature, the distributor, which automates the distribution of studies to the team to better manage the overflow of X-rays.

The distributor’s flexibility and control make it unique. At Texas Children’s, Marla B.K. Sammer, MD, added the configurable distributor layer to a worklist based on specific criteria to ensure the system works the way the department and section need it to.

Predictable workflow and prioritized worklists

Initially, a senior radiologist and a rotating second reader were assigned to read plain films. “A low volume day for us is 300—but we’re usually in the 400 to 500 range, and more often lately, we have been in the high 600s,” Dr. Sammer explains. Frequently, there were times throughout the day that they would have 120 unread plain films on the list, creating a crunch as 5 p.m. approached. “Reading 120 a day is plenty for one radiologist and not everyone can do that volume,” Sammer says. To clear the list, each member of the body section was expected to pitch in and read about 20 plain films each day.

Launching the distributor streamlined the process for handling unread X-rays and reduced unpredictability for radiologists. The solution is configured to distribute exams on weekdays between 8:30 and 11:30 a.m. and 1:30 and 4:30 p.m. A subset of complicated studies are prioritized using criteria set by the team; plain X-rays are sent directly to reading radiologists’ worklists. “If we’re not caught up, the exams are automatically distributed. Radiologists like knowing they’re only getting exams during those hours. It paces them and they know what needs to be done.”

Reduced turn-around times

Turn-around times are faster and more consistent with fewer outliers, Dr. Sammer says. Variability has been reduced, too. Compared to days with the same staffing prior to the distributor, the daily average turnaround time for X-rays was 32 minutes, now it is 24 minutes—a 25% reduction. With more equitable distribution of X-rays across the section, they have even experienced a reduction in turnaround time for non-X-rays, from an average of 58 to 42 minutes. As a result, the section is better equipped to handle the increasing volume of studies each day.

“Not only are our radiologists feeling good about getting the work done faster, they can see they’re providing better service and better care,” Dr. Sammer notes.

Greater radiologist satisfaction

In fact, there’s a general feeling of satisfaction and value among the entire team.

As with any new technology or process, some of the team were initially skeptical and hesitant. But just two months in, even the reluctant section members were feeling good about the addition of the distributor to the PowerScribe Workflow Orchestration solution.

“Everyone is pleased that we’re not having the really long days where unread studies accumulate,” she says. “They’re happy with the solution and have asked to use it more.” In fact, Texas Children’s is currently working on deploying the distributor in their neuroradiology section. Because the solution is so flexible, they will be able to configure different parameters to meet the needs of that section, which has a very different daily workflow than the body section.

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